

# Training Day 5

## Report:

18 June 2024

### **Key Takeways:**

#### **1. JSON (JavaScript Object Notation)**

JSON is a lightweight data interchange format that is easy for humans to read and write, and easy for machines to parse and generate. It is often used for serializing and transmitting structured data over a network, primarily between a server and web applications.

#### **2. XML (eXtensible Markup Language)**

XML is a markup language that defines a set of rules for encoding documents in a format that is both human-readable and machine-readable. It is used to structure, store, and transport data, and is a key technology in the Semantic Web for defining and transmitting complex data structures.

#### **3. Linked Data**

Linked Data refers to a method of publishing structured data so that it can be interlinked and become more useful. It is a key component of the Semantic Web, enabling data from different sources to be connected and queried as a unified whole.

#### **4. FOAF (Friend of a Friend)**

FOAF is an ontology used to describe people, their activities, and their relationships to other people and objects. It is a part of the Semantic Web and allows information to be shared and linked across different systems.

#### **5. URI (Uniform Resource Identifier)**

A URI is a string of characters used to identify a resource on the Internet. URIs are a fundamental component of the Web, enabling resources to be identified, accessed, and interacted with.

## **6. URN (Uniform Resource Name)**

A URN is a type of URI that uses a specific scheme to identify a resource by name in a persistent, location-independent manner. URNs are used to ensure that a resource can be identified even if its location changes.

## **7. Web 1.0, Web 2.0, Web 3.0**

- **Web 1.0:** The first stage of the World Wide Web, characterized by static web pages and limited user interaction.
- **Web 2.0:** The second generation of the web, marked by dynamic content, user-generated content, and the rise of social media.
- **Web 3.0:** Also known as the Semantic Web, this evolution focuses on making web data machine-readable, enabling intelligent agents to understand and respond to complex queries.

## **8. URL (Uniform Resource Locator)**

A URL is a type of URI that specifies the location of a resource on the Internet. It includes the protocol used to access the resource and the resource's address.

## **9. Turtle (Terse RDF Triple Language)**

Turtle is a syntax for writing RDF (Resource Description Framework) data in a compact and readable format. It is used to serialize RDF graphs and is part of the Semantic Web standards.

## **10. W3C (World Wide Web Consortium)**

The W3C is an international community that develops open standards to ensure the long-term growth of the Web. It plays a crucial role in the development and standardization of Semantic Web technologies.

## **11. Rewrite Engine**

A rewrite engine is a component of web servers that modifies URLs based on defined rules. It is commonly used to create cleaner, more user-friendly URLs and to facilitate search engine optimization.